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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,062	04/16/2004	Cecilia Castillo	2002-0427	9972
26652	7590	02/05/2008	EXAMINER	
AT&T CORP. ROOM 2A207 ONE AT&T WAY BEDMINSTER, NJ 07921			NEWAY, SAMUEL G	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/826,062	CASTILLO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Samuel G. Neway	2626	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 November 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 and 21-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 21-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This is responsive to the Amendment filed on 20 November 2007.
2. Claims 1 – 12 are still pending, claims 13 – 20 have been cancelled. New claims 21 – 32 have been added.

### ***Response to Amendment***

3. The Double Patenting Rejections are withdrawn in view of Applicant's amendments.
4. The Objections to the Specification are withdrawn in view of Applicant's amendments.
5. The Objections to claims 2, 5, and 15 are withdrawn in view of Applicant's amendments.
6. The Rejections under 35 USC § 112 of claims 13 – 20 are withdrawn in view of Applicant's amendments.

### ***Response to Arguments***

7. In response to Applicant's argument that Devine et al (US PGPub 2003/0217190), Mital et al (USPN 7,184,967) and Wallace (USPN 4,686,623) are nonanalogous art, it has been held that a prior art reference must either be in the field of Applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the Applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, both Applicant's

invention and Devine and Mital are basically directed to schematically representing flow charts of a process and generating a computer executable code from these flow charts. The fact that the specific processes of Applicant's invention (spoken dialog service) and the prior arts of Devine (telephony) and Mital (business) are different does not render them nonanalogous. As a matter of fact Devine states "the systems and methods described herein may be employed in many applications besides telephony services, including gaming, video-conferencing, billing, and other applications" ([0067]). To further stress the point, both Applicant's invention and Devine even disclose using the same exact software program, Microsoft's Visio, in order to draw flow charts. Wallace is used as prior art to show a well known method of generating a computer executable code (finite state machine) similar to Applicant's state-based representation.

***Claim Rejections - 35 USC § 101***

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 21 – 32 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In claims 21 – 32, a "system" is recited with modules as its only elements which are, according to Applicant's specification, "executed by computers" and includes "routines, programs, objects, components, and data structures" (Applicant's specification [0048]). These are reasonably interpreted as software,

per se. Since the only elements of the system are these modules, the system itself is software alone which is functional descriptive material and therefore non-statutory, absent being claimed in combination with the necessary hardware to enable the software to act as a computer component and realize its functionality.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1, 7, 8, 11, 12, 21, 27, 28, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Devine et al (US PGPub 2003/0217190).

Claim 1:

Devine discloses a method of converting a call flow into a state-based representation (Abstract), the method comprising:

walking a call flow and converting each page of the call flow into a rule of a higher level representation of the call flow ("The drawing package allows for the created flow charts to be saved in an intermediate language format", [0007]);

augmenting the higher level representation with terminal symbols representing state variable assignments and comparisons associated with decision and computation shapes in the call flow ("an intermediate language format that captures the physical description of the graphical representation of

the process as well as information representative of the content in that flowchart", [0007]); and

converting the higher level representation into a state-based representation ("A parser processes these intermediate language documents to create a state event table that can direct the operation of a state machine engine", [0007]).

Devine does not explicitly disclose that the flow chart is for a spoken dialog service. However, it would have been obvious to one with ordinary skill in the art to have to flow chart for a spoken dialog service or any other process that can represented by a flow chart because as Devine states "the systems and methods described herein may be employed in many applications besides telephony services, including gaming, video-conferencing, billing, and other applications" ([0067]).

Claim 7:

Devine discloses the method of claim 1, wherein the call flow comprises at least one page having a set of shapes having specific meanings (Fig. 4 and related text).

Claim 8:

Devine discloses the method of claim 7, wherein the set of shapes having special meaning comprises at least: parallelograms representing rules, lines representing dialog inputs, rectangular boxes representing dialog outputs or actions, diamonds representing Boolean decision functions, hexagrams

representing calculation and assignment functions and annotation shapes  
representation comments (Fig. 4 and related text).

Claim 11:

Devine discloses the method of claim 1, wherein the rule comprises  
terminal symbols comprising the names used to label shapes and transitions of  
the call flow ("The translator can process these shapes and connectors to  
develop a set of instructions, such as a set of XML instructions", [0027]).

Claim 12:

Devine discloses the method of claim 1, further comprising generating a  
unique terminal symbol in the higher level representation that shadows each rule,  
input, output, decision and calculation within the call flow ("The translator can  
process these shapes and connectors to develop a set of instructions, such as a  
set of XML instructions, that represent the service presented in the drawing.",  
[0027]).

Claims 21, 27, 28, 31, and 32:

Claims 21, 27, 28, 31, and 32 are similar in scope and content to claims 1,  
7, 8, 11, and 12 and are rejected with the same rationale.

12. Claims 2, 3, 5, 22, 23, and 25 are rejected under 35 U.S.C. 103(a) as  
being obvious over Devine et al (US PGPub 2003/0217190) in view of Mital et al  
(USPN 7,184,967).

Claim 2:

Devine discloses the method of claim 1, but it does not explicitly disclose wherein the higher level representation is a context-free grammar representation.

In a similar method, Mital discloses converting a workflow into a higher level representation wherein the higher level representation (XML) is defined in a context-free grammar ("Backus-Naur Form", col. 17, lines 15-17, Fig. 24 and related text).

It would have been obvious to one with ordinary skill in the art at the time of the invention to define the higher level representation in Devine's method in a context-free grammar as disclosed in Mital because context-free grammar is a widely used format for specifying the syntax of a language.

Claim 3:

Devine and Mital disclose the method of claim 2, Mital further discloses wherein the context free grammar notation is a Backus-Naur Form (BNF) (col. 17, lines 15-17, Fig. 24 and related text).

It would have been obvious to one with ordinary skill in the art at the time of the invention to define the higher level representation in Devine's method in a Backus-Naur Form as disclosed in Mital because Backus-Naur Form is a widely used format for specifying the syntax of a language.

Claim 5:

Devine and Mital disclose the method of claim 3, Devine further discloses wherein the step of walking the call flow and converting each page to a BNF



occurs automatically via a computing device ("the editor is the Microsoft Visio editor which allows for a created flowchart to be saved an XML format", [0007]).

Claims 22, 23, and 25:

Claims 22, 23, and 25 are similar in scope and content to claims 2, 3, and 5 and are rejected with the same rationale.

13. Claims 4, 6, 9, 10, 24, 26, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Devine et al (US PGPub 2003/0217190) in view of Mital et al (USPN 7,184,967) and in further view of Wallace (USPN 4,686,623).

Claim 4:

Devine and Mital disclose the method of claim 3, but they do not explicitly disclose wherein the state-based representation is a finite state machine (FSM).

It is old and well known in the computing arts to input context-free grammar into a grammar parser and generate a finite state machine as evidenced by Wallace which discloses expressing source code in a context-free grammar which is provided to a grammar parser which in turn generates a finite state machine (col. 2, lines 38-44).

Thus, it would have been obvious to one with ordinary skill in the art at the time of the invention to have the state based representation of Devine's method be finite state machines because they are known and old standards in compiling source code.

Claim 6:

Devine, Mital and Wallace disclose the method of claim 4, Devine further discloses wherein the step of augmenting the BNF with terminal symbols occurs automatically via a computing device ("the editor is the Microsoft Visio editor which allows for a created flowchart to be saved an XML format", [0007]).

Claim 9:

Devine, Mital and Wallace disclose the method of claim 4, Wallace further discloses wherein a grammar compiler is used to convert the BNF into the FSM (col. 2, lines 38-44).

It would have been obvious to one with ordinary skill in the art at the time of the invention to use a grammar compiler to convert BNF into FSM because it is an old and known standard in compiling source code.

Claim 10:

Devine, Mital and Wallace disclose the method of claim 9, Devine further discloses wherein the FSM may be used by at least one spoken dialog tool ("telephony or telecommunication service", [0006]) to perform generation and testing functions associated with a spoken dialog service ("to aid in debugging", [0052]).

Claims 24, 26, 29, and 30:

Claims 24, 26, 29, and 30 are similar in scope and content to claims 4, 6, 9, and 10 and are rejected with the same rationale.

***Conclusion***

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel G. Neway whose telephone number is 571-270-1058. The examiner can normally be reached on Monday - Friday 8:30AM - 5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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**DAVID HUDSPETH**  
**SUPERVISORY PATENT EXAMINER**  
TECHNOLOGY CENTER